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| PRE-APPEAL BRIEF REQUEST FOR REV  |                                   | Docket Number (Optional)<br>0110344.00101US2 |  |
|   | Application Nur                   | nber   | Filed  |
|   | 10/067,255<br>#662                | 5-Conf.<br>4                                 | February 7, 2002   |
|   | First Named Inv                   |  |  |
| 1   | Alexander D.                      | STOYEN                                       |  |
| !   | Art Unit                          |  | Examiner   |
|   | 212                               | 9  | W. L. Starks   |
| nis request is being filed with a notice of appeal.  The review is requested for the reason(s) stated on the attation (s) note: No more than five (5) pages may be provided.  | iched sheet(\$).                  |  |  |
| applicant /inventor. assignee of record of the entire Interest.   | ·<br>                             | Tre  | Signature  |
| applicant finventor.  | <u></u>                           | Туре   | Signature rah H. Donner rd or printed name   |
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Docket No.: 0110344.00101US2 (PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Alexander D. STOYEN

Confirmation No.:

6624

Application No.:

10/067255

Art Unit:

2129

Filed:

February 7, 2002

Examiner:

W. L. Starks

Title:

METHOD AND SYSTEM FOR INTELLIGENT AGENT DECISION

MAKING FOR TACTICAL AERIAL WARFARE

MS AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

# PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

In response to office action dated April 11, 2006 finally rejecting claims 1 - 46, Applicant requests a pre-appeal brief review of the case pursuant to the USPTO's pilot program. See 1296 Off. Gaz. Pat. Office 67.

- 1. Grounds of Rejection to be Reviewed
- 1. Whether claims 1 46 are directed to non-statutory subject matter under 35 U.S.C. § 101 (and consequently also fail to meet the requirements of 35 U.S.C. § 112).
- 2. Whether claims 1 43 are indefinite under 35 U.S.C. § 112 as to the type of subject matter being claimed, because they are drawn to either a "system" or a "method."
- 3. Whether claims 1, 3, 4, and 43 46 are anticipated under 35 U.S.C. § 102(a) by U.S. Patent No. 6,278,401 issued to Wigren (Wigren).

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# II. Argument

# A. Claims 1 - 46 are directed to statutory subject matter

The latest USPTO guidance on examination of applications for compliance with 35 U.S.C. § 101 is the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Interim Guidelines) published on November 22, 2005. Under these guidelines, an invention discloses statutory subject matter if it falls within an enumerated category and does not fall within a judicially created exception. If it does fall with a judicially created exception, a practical application (a useful, concrete, and tangible result) of such subject matter is patentable. Interim Guidelines § IV(C)(2)(b).

Independent claims 1 and 43 are directed to a process for using an intelligent agent system, which is a statutorily enumerated category. Claim 1 is not simply the manipulation of abstract ideas as argued by the Examiner, because the processing done by the computer is actually used to implement decision making. Even if the invention were considered to cover abstract ideas, the independent claims, when read as a whole (as required by the interim guidelines), are directed to a practical application of these abstract ideas. Interim Guidelines § IV(D).

Claim 1, including the elements of "initiating at least one action with respect to the at least one aerial combat situation," is directed to a process for using an intelligent agent in an aerial combat situation. This is a useful result because it is a process with clear military and other combat applications. Claim 1 is tangible, because as recited in the claim, it implements "the decision making" in an "aerial combat situation" by "initiating at least one action." This is an actual, real world, step towards "implementing the decision making." Finally, claim 1 recites a concrete result because the result is repeatable. Interim Guidelines § IV(C)(2)(b)(3). Each time an intelligent agent is used in accordance with the process recited in claim 1, at least one action will be initiated. These arguments apply equally to claim 43's broader "situation."

Independent claim 44 is directed to the statutorily enumerated category of a machine. For the reasons given above with respect to claim 1, this claim also represents statutory subject matter.

Independent claims 45 and 46 are directed to the statutorily enumerated category of a manufacture. These independent claims recite a computer readable medium storing instructions.

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This type of "functional descriptive material" is statutory subject matter because it allows the process of using the agent to be realized in a tangible medium. See Interim Guidelines (ANNEX IV). Additionally, for the reasons given above with respect to claim 1, these claims also represent statutory subject matter.

Applicant respectfully requests the withdrawal of this rejection for independent claims 1 and 43 - 46, and corresponding dependent claims 2 - 42. Applicant also requests the withdrawal of the corresponding rejection under 35 U.S.C. § 112.

B. Claims 1 - 43 are not indefinite under 35 U.S.C. § 112, because they are clearly directed to a method.

The preamble of independent claims 1 specifically recites "In an intelligent agent system, a computer implemented or user assisted method of decision making in at least one aerial combat situation, comprising the steps of..." (emphasis added). The emphasized portions of the claim make it clear that the claim is directed to a method of using a system, and therefore is not indefinite for claiming both a "method" and a "system." Claims 44 - 46 are directed to systems or computer readable mediums and are not indefinite under 35 U.S.C. § 112. Accordingly, Applicant respectfully requests this rejection to be withdrawn.

## C. Claims 1, 3, 4, and 43 - 46 are not anticipated by Wigren

# 1. Claim I

Claim 1 is not anticipated by Wigren, because Wigren fails to teach all the elements of claim 1. Specifically, Wigren fails to teach either an intelligent agent, or "one tactical agent that includes data corresponding to . . . longer-term possibilities." Essentially, Wigren is directed towards a system for tracking targets and estimating a target type using data from various sensors. Wigren simply processes this sensor data like a sophisticated calculator, and consequently, is not the same as the "intelligent agent system" being claimed by Applicant. (Col. 2, lines 10-15).

First, Wigren fails to teach the element of an intelligent agent. Embodiments of the present invention are directed towards an intelligent agent, and as described in the specification, "Agents and humans collaborate because humans and agents jointly perform tasks" (Specification, page 3). The specification further describes that, "The described ATS provides a

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feedback loop between an intelligent agent and a user," and "Agents and users (humans or other agents) exchange information throughout ATS running" (Specification, page 3).

The Examiner cited Wigren (Col. 24, lines 15-25), as teaching an interactive agent. This portion of Wigren only teaches that a user enters the data necessary to configure the system. The same need for configuration is also described at (Col. 5, lines 21-25) and (Col. 13, lines 52-55). Once the system is properly configured, it is able to use sensor measurements to calculate target type probabilities. See (Col. 5, lines 25-50). This type of configuration before operation is analogous to a batch processing system (i.e. a printer processing various print jobs from a print queue), and is not, even under a broadest reasonable construction, what one of ordinary skill in the art would consider the term "intelligent agent" to mean. As described above, an intelligent agent provides a higher level of interactivity, to the point that they can even provide information to a user ("Agents and users — exchange information throughout ATS running.")

Additionally, the intelligent agent of claim 1 implements "the decision making," either independently or with the assistance of a user. Wigren is like a sophisticated calculator, capable of turning input data into estimates for target tracks and target types, but similar to the limited role of a calculator, it does not independently implement decision making, or assist a user in implementing decision making. For example, see the summary of the invention (specification, page 2), "the agent is intelligent because it exhibits autonomous behavior." Therefore, Wigren fails to teach or suggest an intelligent agent, because it cannot independently, or assist a user, in implementing decision making.

Second, Wigren fails to teach a "tactical agent that includes data corresponding to . . . longer-term possibilities." Wigren operates by mathematically processing current and past sensor measurements. See (Col. 2, lines 28-30) and (Col. 7, lines 33-38). These measurements are described in (Col. 7, lines 33-38), as "the last two measurements." Use of future, or longer-term possibilities, has no place in the estimation system of Wigren. Because Wigren uses prior measurements to estimate a target type, and not future possibilities, Wigren cannot not teach a system that "includes data corresponding to . . . longer-term possibilities." Accordingly, Applicant respectfully requests this rejection be withdrawn.

#### 2. Claim 3

Claim 3 further recites that the intelligent agent "assists the at least one user in the

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decision making. by providing the at least one user advice." The Examiner argued this feature is shown at (Col. 13, lines 65-67) which describes updating target type probabilities. This describes part of the calculations done by Wigren, and similar to the arguments above, Wigren's only role is like a sophisticated calculator, not providing advice that assists a user in decision making. Specification, page 2 ("the agent gives explicit advice.") Additionally, this claim is not anticipated for the reasons given above with respect to claim 1.

### 3. Claim 4

Claim 4 further recites that the intelligent agent is "configurable to perform independent decisions." The Examiner argued this feature is shown at (Col. 13, lines 65-67) which describes updating target type probabilities. As argued above with respect to claim1, this does not teach an agent "configurable to perform independent decisions." Additionally, this claim is not anticipated for the reasons given above with respect to claim 1.

## 4. Claims 43 - 46

Claims 43 - 46 all recite an intelligent agent and "one tactical agent that includes data corresponding to . . . longer-term possibilities." Therefore claims 43, 45, and 46 are not anticipated for at least the reasons given above for claim 1.

#### III. Conclusion

For the reasons given above, Applicant respectfully requests withdrawal of the current rejections, and timely allowance of the pending claims.

Respectfully submitted,

Dated: 10/11/06

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